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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,633

03/05/2007

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EXAMINER

GORMAN, DARREN W

ART UNIT

PAPER NUMBER

3752

MAIL DATE

DELIVERY MODE

12/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,633	Applicant(s) MCGEE ET AL.	
	Examiner Darren W. Gorman	Art Unit 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/18/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Information Disclosure Statement

1. The IDS filed on July 18, 2008 is hereby acknowledged and has been placed of record. Please find attached a signed copy of the PTO 1449.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. It should first be noted, due to the issues of indefiniteness as set forth below under paragraph 5 of this office action, it is not fully clear as to what structural elements are positively recited in the claims. To the extent that the structural recitations found in the claims are positively recited, the “reservoir”, “porous transfer member”, and “evaporation surface being a capillary sheet in liquid transfer contact with and extending substantially transversely from the transfer member”, recited in claim 1, and the “essentially cylindrical porous wick”, and “evaporation surface extending substantially transversely from the wick and in liquid transfer contact therewith, the evaporation surface comprising a capillary sheet”, recited in claim 3, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

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should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: The specification, as filed does not include the appropriate section headings as set forth in 37 CFR 1.77(b).

Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant’s use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase “Not Applicable” should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A

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COMPACT DISC .

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the entire recitation between "An apparatus" and " , and being further characterized" is merely recited in functional terminology with respect to the preamble "apparatus". However, the remaining recitations in the claim after " , and being further characterized" further limits the material of the "sheet" which is not positively recited in the claim since it is only recited as part of the preamble's functional language. Thus, the Examiner cannot determine the metes and bounds of the claimed apparatus.

Regarding claim 3, it is recited as a "method", however there do not appear to be any positively recited process steps in the body of the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minamite et al., US Patent Application Publication No. 2003/0146294, in view of Hammons et al., USPN 5,840,246.

Regarding apparatus claims 1 and 2, as well as the claims can be understood by the Examiner, Minamite (see Figure 1) shows a volatile liquid diffusion apparatus including a reservoir (1); a cylindrical porous transfer member (3), and a capillary sheet (5) in liquid transfer contact with and extending substantially transversely from the transfer member, the capillary sheet expressly disclosed by Minamite as being formed from any of numerous suitable materials, including plastic fibers (see paragraph [0021]). However, Minamite is silent as to a specific shore hardness of the plastic capillary sheet. Further, Minamite discloses that the thickness of the sheet may be between 2-15 mm. (see again, paragraph [0021]), rather than expressly disclosing a thickness of from 0.75-1.25 mm. Also, Minamite lacks disclosure with respect to the surface energy being 15-50 dyne/cm.

It should first be noted that Applicants' specification lists a number of plastics material from which the capillary sheet of the instant invention may be made, including Polyethylene PE (HPDE) and Polypropylene PP (see page 4). Further, as set forth in Applicants' specification,

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and as one having ordinary skill in the art would understand, specific plastic materials such as Polyethylene PE (HPDE) and Polypropylene PP have inherent properties which include a specific shore hardness and specific surface energy. Indeed, as recognized by Applicants in the filed specification, Polyethylene PE (HPDE) and Polypropylene PP have a shore hardness and surface energy within the ranges recited in the claims.

Hammons teaches a volatile liquid diffusion apparatus with a capillary sheet made from any one of numerous materials, including polyethylene and polypropylene (see column 5, line 66 through column 6, line 11), thus Hammons teaches forming a plastic capillary sheet having a shore hardness of from around 50 to 80 and a surface energy of from 15-50 dyne/cm.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use one of the specific plastics materials, such as polyethylene or polypropylene, as taught by Hammons, for the generic plastic capillary sheet of the device shown by Minamite, since polyethylene and polypropylene were known plastics materials that are useful for forming a capillary sheet that diffuses volatile liquids, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious choice. *In re Leshin*, 125 USPQ 416 (CCPA 1960).

Regarding the thickness range recitation, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the capillary sheet of Minamite to have a thickness within the range of from 0.75-1.25 mm., whereby less material is required to form the sheet of the apparatus, and since it has been held that where the general

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conditions of a claim are disclosed in the prior art, discovering the optimum of workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 (CCPA 1955).

With respect to the “method” claim presented as claim 3, although technically the Examiner cannot apply art to a process claim that does not include process steps, to the extent that claim 3 can be interpreted to include process steps, the apparatus of Minamite as modified above by Hammons, in use, anticipates or renders obvious the recited process.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W. Gorman whose telephone number is 571-272-4901. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Len Tran can be reached on 571-272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Darren W Gorman/
Primary Examiner, Art Unit 3752